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| 10/753,418 | 01/09/2004 | Julien Metzger | 033813-033 | 6372 |

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EXAMINER

MAKI, STEVEN D

| ART UNIT | PAPER NUMBER |
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1733

DATE MAILED: 09/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/753,418

Applicant(s)

METZGER, JULIEN

Examiner

Steven D. Maki

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1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>090104, 010904</u> . | 6) <input type="checkbox"/> Other: ____. |

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- 1) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 2) Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 line 18 describes "said portions". It is unclear which portions are being described. In claim 1 line 18, it is suggested to change "said portions" to --said some portions--.

- 3) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Ishihara

- 4) **Claims 1-8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishihara (US 2002/0139164) in view of Ghilardi (US 4705088), Japan 807 (JP 1-204807), Europe 692 (EP 1234692) or Buddenhagen (US 2612928).**

With respect to Ishihara (filed 2-19-02), applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Ishihara discloses a tire comprising sipes ("incisions") having a width of 0.1 - 2 mm and a three dimensional shape. The sipe is formed using a sipe blade, which may have primary molded shape (corrugated shape) and secondary molded shape

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(protruded shape). The corrugated shape comprises a succession of "sipe portions" ("incision portions"). The protruded shapes ("relief elements having amplitude K") may be formed in each "sipe portion" along substantially the entire depth of the sipe mold blade. See for example figure 4d. Ishihara does not specifically recite orienting some portions [plural] at an angle beta of at most equal to 15 degrees. However, it would have been obvious to one of ordinary skill in the art to provide secondary shape (e.g. protruded portions) on "longitudinally oriented" sipe portions of a sipe as suggested by Ghilardi, Japan 807, Europe 692 or Buddenhagen since (1) the sipe of each of Ghilardi, Japan 807, Europe 692 and Buddenhagen is located in a "ridge" and has a "primary shape" (two-dimensional shape) including "longitudinally oriented portions" and (2) Ishihara teaches providing a sipe having a primary shape (two dimensional shape) with a secondary shape (e.g. protruded portions) such that the sipe has a three dimensional shape so that the tire has improved stiffness. In Ghilardi, the sipe (lamel) is located in a ridge (rib) and comprises longitudinally oriented sipe portions "c" and "e", which are inclined at an angle of for example 5-20 degrees with respect to the circumferential direction. With respect to "at most equal to 40 degrees, the angle between points A and B of the sipe forms a relatively small acute angle with respect to the transverse direction (see figure 1 of Ghilardi). With respect to Japan 807, the sipe 5 is located in a ridge (block) and comprises longitudinally oriented sipe portions, which are oriented at 0 degrees with respect to the circumferential direction. With respect to at most equal to 40 degrees, the angle between the opposite ends of the sipe is a relatively small acute angle with respect to the transverse direction (see left illustration in of figure 3 of Japan

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807). In Europe 692, the sipe (transverse cut) is located in a ridge (block) and comprises longitudinally oriented sipe portions, which are oriented at 0 degrees with respect to the circumferential direction. With respect to at most equal to 40 degrees, the angle between the opposite ends of the sipe is a relatively small acute angle with respect to the transverse direction (see figure 1 of Europe 692). In Buddenhagen, see sipes 34 in figure 5. The limitation of the total length being at least 1/5 of the width of the ridge would have been obvious in view of the total length of the "longitudinally oriented portions" suggested by Ghilardi, Europe 692, Japan 807 or Buddenhagen. The limitation of the amplitude of the relief elements being 4-10 times the mean width of the incision would have been obvious in view of the size of the protruded portions suggested by Ishihara.

As to the dependent claims: As to claim 2, note the suggestion from Ghilardi or Buddenhagen to form a sipe with relatively long "longitudinally oriented portions" (the optimum length of which could have been determined without undue experimentation). As to claims 3-4, Ishihara suggests forming the protruded portions along substantially the entire depth of the sipe. As to claim 5, Ghilardi suggests an angle of 5 degrees and Japan 807, Europe 692, and Buddenhagen suggest an angle of zero degrees with respect to the circumferential direction. As to claims 7-9, it would have been obvious to incline the sipes at an angle different from zero degrees with respect to the radial direction such that they are all inclined in the same direction or alternately inclined in opposite directions (positive and negative) since it is taken as well known / conventional per se in the tire tread art to incline sipes at an angle different from zero with respect to

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the radial direction in the same direction or in opposite directions either to improve wear or to make the sipe active in braking or acceleration. The limitation of claim 11 would have been obvious in view of the location of the longitudinally oriented portions suggested by Japan 807, Europe 692, or Buddenhagen.

5) Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishihara in view of Japan 807 or Europe 692 as applied above and further in view of Fukuoka (US 595070).

As to claim 9, it would have been obvious to incline sipe portions of the same sipe of either Japan 807 or Europe 692 in opposite directions with respect to the radial direction in view of the suggestion from Fukuoka to incline sipes portions connected by a longitudinally oriented portion in opposite directions with respect to the radial plane to improve scratching effect and control degradation of steering stability / braking property on wet road as the tire wears.

6) Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishihara in view of Europe 692 as applied above as applied above and further in view of Japan 419 (JP 2000-25419).

As to claim 10, it would have been obvious to incline the longitudinally oriented portions in opposite directions with respect to the circumferential since Japan 419, which shows a sipe shape similar to that of Europe 692, teaches that the longitudinally oriented portions may be inclined in opposite directions (figures 3, 4).

Heinen (available under 102(b))

7) Claims 1-8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinen (WO 99/48707) in view of Ghilardi, Japan 807, Europe 692 or Buddenhagen.

Heinen discloses a tire tread having sipes in a ridge (e.g. block). The sipe may have various two dimensional shapes (figures 9A to 9D) and protrusions and recesses ("secondary shape") in the depth direction, which interlock and increase rigidity of the elastomeric elements of the tread. Heinen does not specifically recite orienting some portions [plural] at an angle beta of at most equal to 15 degrees. However, it would have been obvious to one of ordinary skill in the art to provide secondary shape (e.g. protrusions / recesses) on "longitudinally oriented" sipe portions of a sipe as suggested by Ghilardi, Japan 807, Europe 692 or Buddenhagen since (1) the sipe of each of Ghilardi, Japan 807, Europe 692 and Buddenhagen is located in a "ridge" and has a "primary shape" (two-dimensional shape) including "longitudinally oriented portions" and (2) Heinen teaches providing a sipe having a primary shape (two dimensional shape) with a secondary shape (protrusions /recesses) such that the sipe has a three dimensional shape so that the tire has improved stiffness. In Ghilardi, the sipe (lamel) is located in a ridge (rib) and comprises longitudinally oriented sipe portions "c" and "e", which are inclined at an angle of for example 5-20 degrees with respect to the circumferential direction. With respect to "at most equal to 40 degrees, the angle between points A and B of the sipe forms a relatively small acute angle with respect to the transverse direction (see figure 1 of Ghilardi). With respect to Japan 807, the sipe 5

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is located in a ridge (block) and comprises longitudinally oriented sipe portions, which are oriented at 0 degrees with respect to the circumferential direction. With respect to at most equal to 40 degrees, the angle between the opposite ends of the sipe is a relatively small acute angle with respect to the transverse direction (see left illustration in of figure 3 of Japan 807). In Europe 692, the sipe (transverse cut) is located in a ridge (block) and comprises longitudinally oriented sipe portions, which are oriented at 0 degrees with respect to the circumferential direction. With respect to at most equal to 40 degrees, the angle between the opposite ends of the sipe is a relatively small acute angle with respect to the transverse direction (see figure 1 of Europe 692). In Buddenhagen, see sipes 34 in figure 5. The limitation of the total length being at least 1/5 of the width of the ridge would have been obvious in view of the total length of the "longitudinally oriented portions" suggested by Ghilardi, Europe 692, Japan 807 or Buddenhagen. The limitation of the amplitude of the relief elements being 4-10 times the mean width of the incision would have been obvious in view of the size of the protrusions / recesses suggested by Heinen.

As to the dependent claims: As to claim 2, note the suggestion from Ghilardi or Buddenhagen to form a sipe with relatively long "longitudinally oriented portions" (the optimum length of which could have been determined without undue experimentation). As to claims 3-4, Heinen suggests forming the protruded portions along substantially the entire depth of the sipe. As to claim 5, Ghilardi suggests an angle of 5 degrees and Japan 807, Europe 692, and Buddenhagen suggest an angle of zero degrees with respect to the circumferential direction. As to claims 7-9, it would have been obvious to

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incline the sipes at an angle different from zero degrees with respect to the radial direction such that they are all inclined in the same direction or alternately inclined in opposite directions (positive and negative) since it is taken as well known / conventional per se in the tire tread art to incline sipes at an angle different from zero with respect to the radial direction in the same direction or in opposite directions either to improve wear or to make the sipe active in braking or acceleration. The limitation of claim 11 would have been obvious in view of the location of the longitudinally oriented portions suggested by Japan 807, Europe 692, or Buddenhagen.

8) Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heinen in view of Japan 807 or Europe 692 as applied above and further in view of Fukuoka (US 595070).

As to claim 9, it would have been obvious to incline sipe portions of the same sipe of either Japan 807 or Europe 692 in opposite directions with respect to the radial direction in view of the suggestion from Fukuoka to incline sipes portions connected by a longitudinally oriented portion in opposite directions with respect to the radial plane to improve scratching effect and control degradation of steering stability / braking property on wet road as the tire wears.

9) Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heinen in view of Europe 692 as applied above as applied above and further in view of Japan 419 (JP 2000-25419).

As to claim 10, it would have been obvious to incline the longitudinally oriented portions of the same sipe in opposite directions with respect to the circumferential

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direction since Japan 419, which shows a sipe shape similar to that of Europe 692, teaches that the longitudinally oriented portions may be inclined in opposite directions (figures 3, 4).

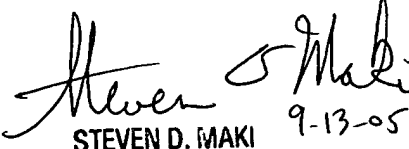
Remarks

- 10) The remaining references are of interest.
- 11) No claim is allowed.
- 12) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Dunn can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven D. Maki
September 13, 2005


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9-13-05